BEHIND THE SCENES IN A MOTION PICTURE CARTOON STUDIO

By Francis Tashlin

EDITOR'S NOTE—One of the bright spots in the art world just now is the animated art studios. A number of Federal artists hold conspicuous positions in this field. Francis Tashlin, better known as Tish Tash, does not limit his operations to animated cartooning, his original jokes appearing frequently in humorous publications. By way of appreciation for results obtained following his preparation in this special line of work, Mr. Tashlin has generously contributed from his experience gained as animator in the Aesop's Fable Studio.

For approximately ten years Aesop's Fable cartoons have been entertaining motion picture audiences with the antics of their funny characters and mystifying those who paused to wonder how the little figures acquired life, how they learned to sing and how the sound effects are timed so perfectly.

Great as were the problems surmounted by various branches of the motion picture industry with the advent of sound, perhaps in no other field were met such obstacles as those that confronted animated cartoons. In order to show some of the workings that go into making a cartoon, let us visit the studio where Aesop's Sound Fables are produced by the Van Beuren Corporation for RKO release.

Getting statistical for a moment, let us set forth a few items that enter into the making of a sound cartoon. First of all, moving pictures do not move of themselves, but are rather a succession of still pictures projected on the screen at the rate of ninety feet per minute, or a foot and a half per second. There are sixteen "frames" or pictures to one foot of film and therefore twenty-four separate and distinct pictures are shown on the screen each second. Ordinarily motion pictures are photographed at the same rate of speed at which they are projected, but in animated cartoons the camera photographs but one frame or picture at a time. But before the photographic stage is reached there are many other workings that must be taken care of.

In the days of silent pictures a staff of twenty-five men were sufficient to produce a Fable cartoon each week. Today, not counting the music and effect men employed for recording purposes, twice the number of men are needed to make one cartoon every two weeks.

First there is the story to be worked out. Due to the fact that so many technicalities are involved, outside scenarios are not solicited and the artists gather in a conference room to map out a general idea of what the story is to consist of. At this meeting, in addition to the artists, there is the musical director and what might be termed a "song and dance" man.

Music to accompany the various scenes must be selected in advance and decided on as to whether or not it is appropriate for the idea in mind. Various steps or gags are demonstrated and the artists jot down their notes and make rough sketches. Also, they often attempt

<-- Esc to close image. Use scroll bar to move left and right on wide images -->

Animator at board (A) Music of scene to be animated, (B) Exposure sheets

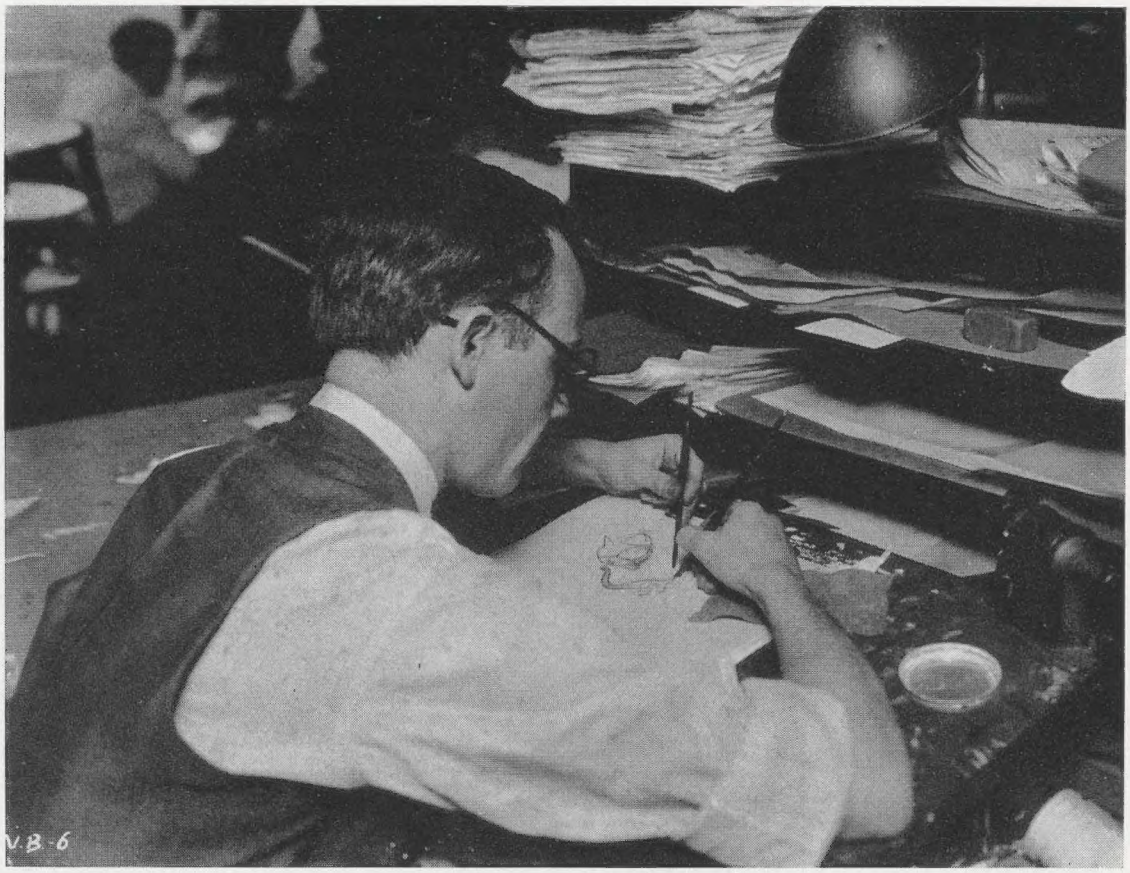
to show what the action of a character should be. For instance, one will show how a rooster should conduct himself when he is strutting across toward Sweetie Pullet.

Naturally, these conferences are different from the solemn heavy affairs of the Bankers Advertising Corporation, Ltd. Nobody looks important, no one is high hatted by the presiding officer and you would possibly see an animator who is six foot four trying to show by actual example how a lady bug should act when she is doing the fandango, and another would be singing a song that might be used. "Da-da-da-da" is as far as he generally goes for the voice is bad enough — the words would be awful. Sometimes two or three days are required before the artists can return to their boards and get down to the work of actually producing.

A staff of fifty men are employed at the studio, all of whom devote their time exclusively to drawing. These are divided into three groups, first the artists, or animators as they are generally referred to, second the tracers and third the opaquers.

A staff of fifteen artists sketch their drawings on translucent tissue paper. The average Fable of 700 feet requires from 10,000 to 15,000 separate drawings, as well as from twenty-five to thirty backgrounds. To the uninitiated this might seem an impossible task, but when it is considered that some of the drawings consist merely of a hand or a foot, later to be superimposed over

<-- Esc to close image. Use scroll bar to move left and right on wide images -->



Tracer—The cell is pressed flat with end of brush in left hand, while right hand traces the pencil drawing beneath the cell in ink

another drawing to make the complete picture, some of the difficulty disappears.

The artist's desk consists of a large drawing board with a square approximately seven by nine inches cut out of the center in which is fitted a piece of plate glass. Below the glass is an electric bulb, the reflected light enabling the artist to follow through several layers of paper the action of the figure he is drawing. The paper on which the artist works has two perforations at the top which fit over two pegs on the drawing board. This system of holes and pegs is used throughout the entire process, including photographing, the purpose being to insure proper registration of the drawings.

The artist now starts his scene, which we will say is Waffles Cat walking. The first sketch would show Waffles starting a step. The next drawing would be Waffles finishing a step. By placing these two drawings above the light, the artist can see the start and finish of the action and he must then fill in the intermediate drawings to give the process smoothness. This is what is termed animating and requires the greatest skill.

The drawings are numbered according to scene and group and must be made so that the action will synchronize with the music. For this purpose the music is set up by the musical director by "beats." Sometimes the artist will not even know the musical selection for the scene he is drawing, but if he knows the number of beats per minute,

<-- Esc to close image. Use scroll bar to move left and right on wide images -->

he can make his animation in perfect synchrony.

As scenes are completed, the drawings are turned over to the tracing department where the outlines of the figures are traced in ink on specially treated celluloid. The use of celluloid is a great time-saver, but this will be explained later as its use more directly applies to the photography.

As the tracers finish with the drawings, they are placed on drying racks and are next turned over to the opaquing department, whose duty it is to fill in the outlines with black, white or gray paint, a chart being provided with each scene designating what shades are to be used throughout on each character. When the opaquing department has completed its work, the celluloids or "cells" are ready to be turned over to the camera department.

Photographing an animated cartoon is a tremendous task, necessitating two cameramen and two assistants working ceaselessly from morning to night, and many times far into the night. The average time required to photograph a Fable is eleven to twelve days.

With each scene that is delivered to the camera department there is also delivered an exposure sheet on which is shown the background and celluloids by number for each individual frame or picture. Four separate and distinct drawings are photographed at the same time, one atop the other, and here is where we see the saving of time made possible by the use of celluloid. Only objects that actually move must have separate drawings.

The camera is mounted directly above a rack, or table, on which the cameraman first places the background. On this background is shown all the objects that do not have animation or life throughout the scene. By this is meant all the objects that do not move. For instance, if a chair in the scene is to be left in the same place throughout, it is drawn on the background. If, on the other hand, Waffles Cat or Don Dog, or some of the other characters in the Fables cast is to enter and move the chair, it must be drawn on the celluloid so that proper animation may be given it.

After the background is put in place, three layers of celluloid are placed on top of it, various characters appearing in the scene being on the separate layers of celluloid. Let us take for instance, three characters walking into the picture, one at a time, and then standing alongside one another to sing a song.

The cameraman would first place his background, with three blank celluloids above it and snap several frames, merely for effect and to give the final picture continuity and so that the characters do not appear to rush in. This action would be marked on the exposure sheet for the proper number of frames. Then the first character appears, taking step by step.

To complete one step requires from five to ten drawings, depending on the speed of action desired, the faster the action, the less drawings. However, if too few drawings are made, the action becomes jumpy.

While the first character is walking in to take his place, the action is confined to one celluloid, the set-

-- Esc to close image. Use scroll bar to move left and right on wide images -->

Camera Room. (A) Camera; (B) Glass frame to lay over cells; (C) Cells to be photographed

up on the camera being first the background, then two blank celluloids and on top the celluloid on which the character appears. When the first character takes his position in the scene, the second character starts to enter, the action being the same as the first.

The set-up would now be changed so that first there would be the background, then the first celluloid with the character who is already in his place, then a blank celluloid and on top the celluloid on which is traced the outline of the second character. When the second character is in place, the third character enters. Now all three layers of celluloid are in use until the third character is in place.

For the purpose of better illustrating the celluloid process, let us say that the three characters do not move their bodies while singing, merely opening their mouths in unison. The three figures would then be drawn on one celluloid and the three heads on another so that separate drawings to animate the heads only would be needed, these being so set up that when the celluloids are in place they would appear as one picture. There would then be an extra celluloid which might be used if the singers were to move their hands or feet for the purpose of adding gestures.

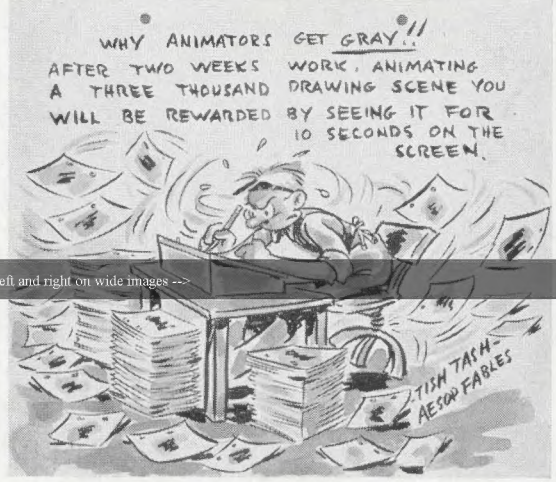
The cameraman in photographing would follow his exposure sheet which would read, "Background No. 1," "Celluloids 1, 2, 3" for the first frame or picture. The next exposure would read, "Background No. 1," "Celluloids 1, 2, 4," etc., on down through the scene, the celluloids being changed by the cam-

-- Esc to close image. Use scroll bar to move left and right on wide images -->

Background department. Note circular hole cut in animation board so that drawing may be turned at any angle

eraman as indicated on his exposure sheet. But this is not the only thing the cameraman must keep in mind. Sound enters into the photography as well as every other operation in the making of a sound cartoon. The cameraman is instructed on the rhythm or number of beats of the music that is later to be added and by means of a secret process registers the beats on the negative film.

When the photographing is completed, the various scenes are arranged in order and a master print is made. All this while the musical director has been working out his


WHY ANIMATORS GET GRAY!!
AFTER TWO WEEKS WORK, ANIMATING A THREE THOUSAND DRAWING SCENE YOU WILL BE REWARDED BY SEEING IT FOR 10 SECONDS ON THE SCREEN.
TISH TASH- AESOP FABLES

<-- Esc to close image. Use scroll bar to move left and right on wide images -->

music and rehearsing it, arranging original compositions whenever necessary, so that by the time the print is returned from the laboratory, he is all ready for a final or dress rehearsal.

Minor cuts are sometimes necessary, but as a rule the mathematics are so perfectly detailed, that the operations go through without a hitch. A date is arranged for the recording studio, musicians and sound effect men are notified and the locale of operations now shifts to working before the microphone.

For those not familiar with the workings of a recording studio in the synchronizing of animated cartoons, let us say that the essential requisites are a sound-proof room, the necessary recording apparatus, a projection booth and machine for the purpose of projecting the picture (silent) on the screen and last, but not least, the men to supply the music and sound effects.

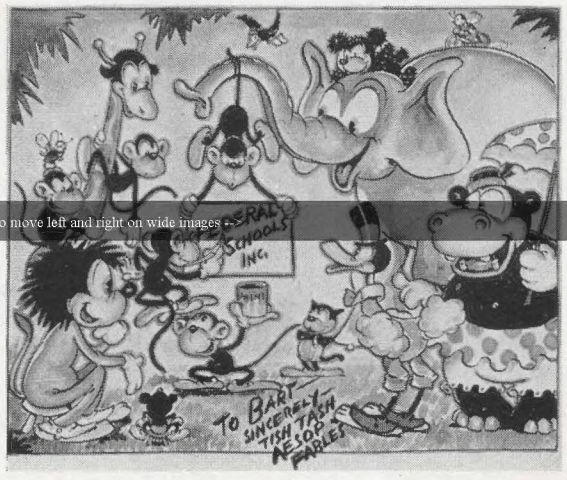
An important feature is the placing of the various musical pieces so that the microphone will register the music and sound in their correct proportion. For instance, if a clarinet or other shrill instrument were placed too close to the microphone, it would drown out the other instruments and be over-emphasized.

After the men have taken their respective places, the film is started, the men get their cue and the score is rehearsed, music, footbeats, thunder and lightning effects or what not, all coming in at their proper places. The preparatory work has been so complete that one rehearsal is generally sufficient. The microphone is next put into action, everyone is cautioned against making any sounds that are not supposed to be registered and the recording takes place.

It now merely remains for the picture negative and the sound track negative to be delivered to the laboratory, matched up properly and hundreds of prints made so that another Aesop's Fable cartoon may be presented to moving picture audiences throughout the world.

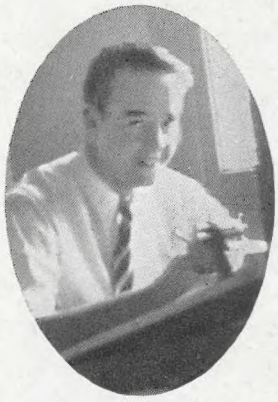
Here are some interesting figures prepared by one of the Fable artists which give a concise survey of the work involved:

1. 50 artists make 26 animated cartoons a year.
2. Each cartoon averages 12,000 drawings.
3. Each drawing is handled five separate times — penciling, inking, opaquing (black, white and gray).
4. 312,000 drawings are animated in one year.
5. 312,000 drawings are worked on 1,560,000 times.
6. The drawings make approximately 18,200 feet of film.
7. All of this, one year's work of 50 men, can be shown on the screen in 3 hours and 20 minutes.



-- Esc to close image. Use scroll bar to move left and right on wide images --

ATTAINMENT OF FEDERAL TRAINED ARTISTS IN SPECIAL LINES



Francis Tashlin

Francis Tashlin, author of the enlightening contribution, "Behind the Scenes in a Motion Picture Cartoon Studio," started on the Federal Course as a lad of fifteen and after five years reported "more success than he ever expected." The young artist started, when a Federal student, with the Out of the Inkwell Studio, Inc., but for the past three years has been with the Aesop Fables organization. In response to an inquiry as to conditions in his line he responded:

"I tell you, it is a 'grand and glorious feeling' to get a nice fat pay envelope and extra checks through the mail every week. For this reason I have again to thank you."

Floyd Gottfredson is conspicuously listed as head of the Walt Disney Comic Strip Department in recent advertising of that organization in the Motion Picture Herald, reproduction of which is to be found at the bottom of this page.

Jean Marion Gates, whose specialty is tinting and drawing in the Charles Mintz Art Studio in Hollywood, where Krazy Kat and Scrappy cartoons originate, was third prize winner in the Christmas cover contest. After leaving high school, this ambitious young woman worked at anything she could get, such as soda fountain clerk in a candy store and so on.

"But," says Miss Gates, "as I was mainly interested in an art career, I put hard work on my Federal Course and when the depression hit me I took samples to every art studio in Los Angeles and Hollywood, and after a few months met requirements in the work in which I am now happy."

Another student of outstanding ability specializing in animated art is Miss LaVerne Harding, of the Universal Studio, where she is employed on the Oswald feature. Miss Harding is co-author and artist in

Music Library
Bernice Ellman

Comic Strip Department
FLOYD GOTTFREDSON
Al Taliaferro
Ted H. Osborne
Tom Wood
Myron F. Nelson

Apprentice Animators
John Liggerra
Leonard Sebring
Geo. H. Miller
John Bond
Don Coleman
Geo. Dane
Thomas Codrick

Dorothy Powers
Madeline Porter
Helena Thompson
Marceil Clark
Louise Harms
Edna Ruth
Grace Randall
Marge Faulkner
Leahdora de Silva
Rosella Peterson

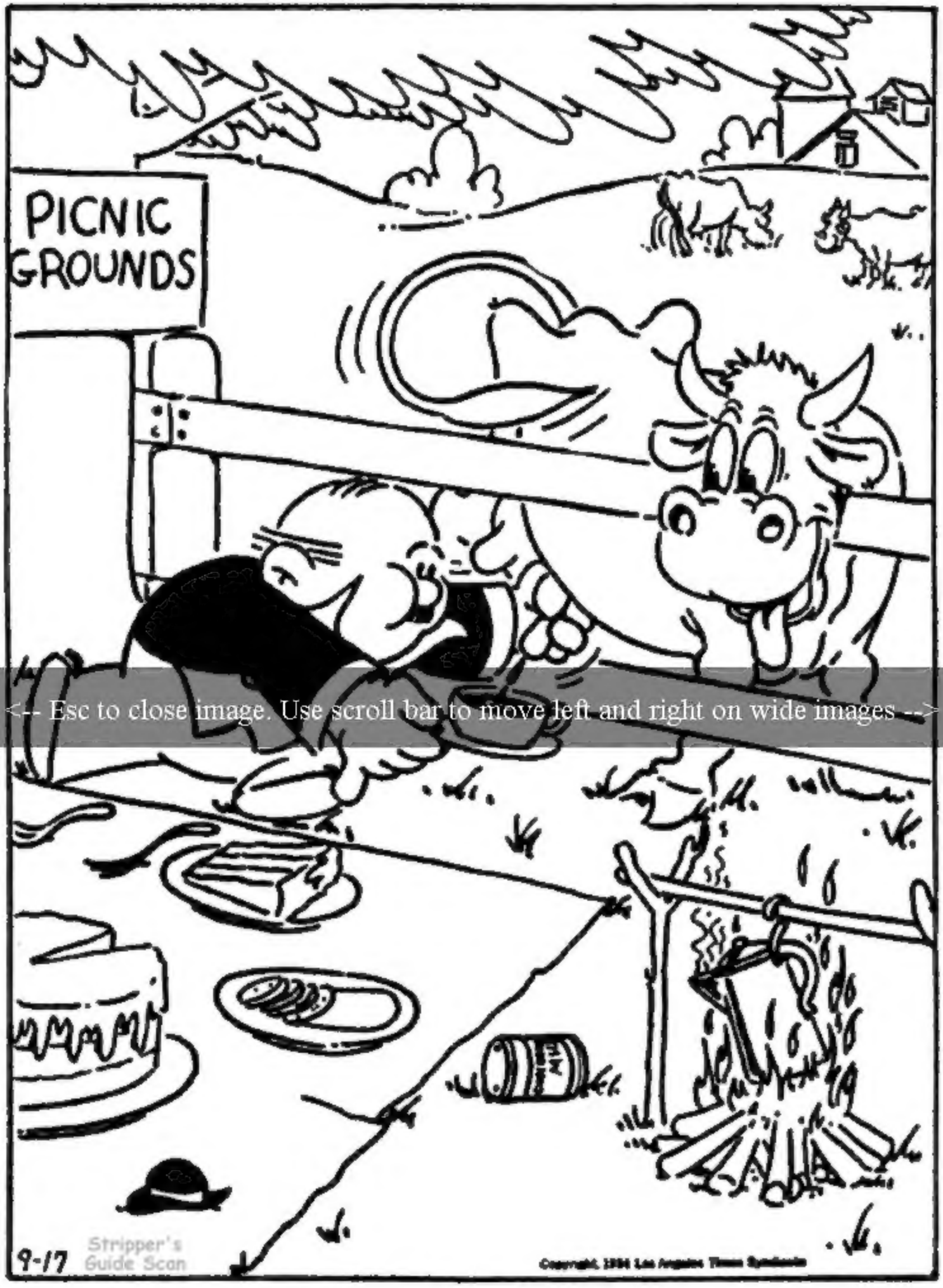
BUSINESS ADMINISTRATION

ROY O. DISNEY, *General Manager*
HARRY HAMMOND BEALL, *Director of Publicity*
LUCILLE ALLEN BENEDICT, *Mickey Mouse Clubs*
GEO. E. MORRIS, *Comptroller*
EDW. M. FRANCIS, *Auditor*
DOLORES VOGHT, *Secretary*

<-- Esc to close image. Use scroll bar to move left and right on wide images -->

Walt Disney Production Limited, The Motion Picture Herald. Note play-up of Federal student, Floyd Gottfredson as "Head of Comic Strip Department"

Van Boring *(He Never Says a Word)* **—By Tish Tash**



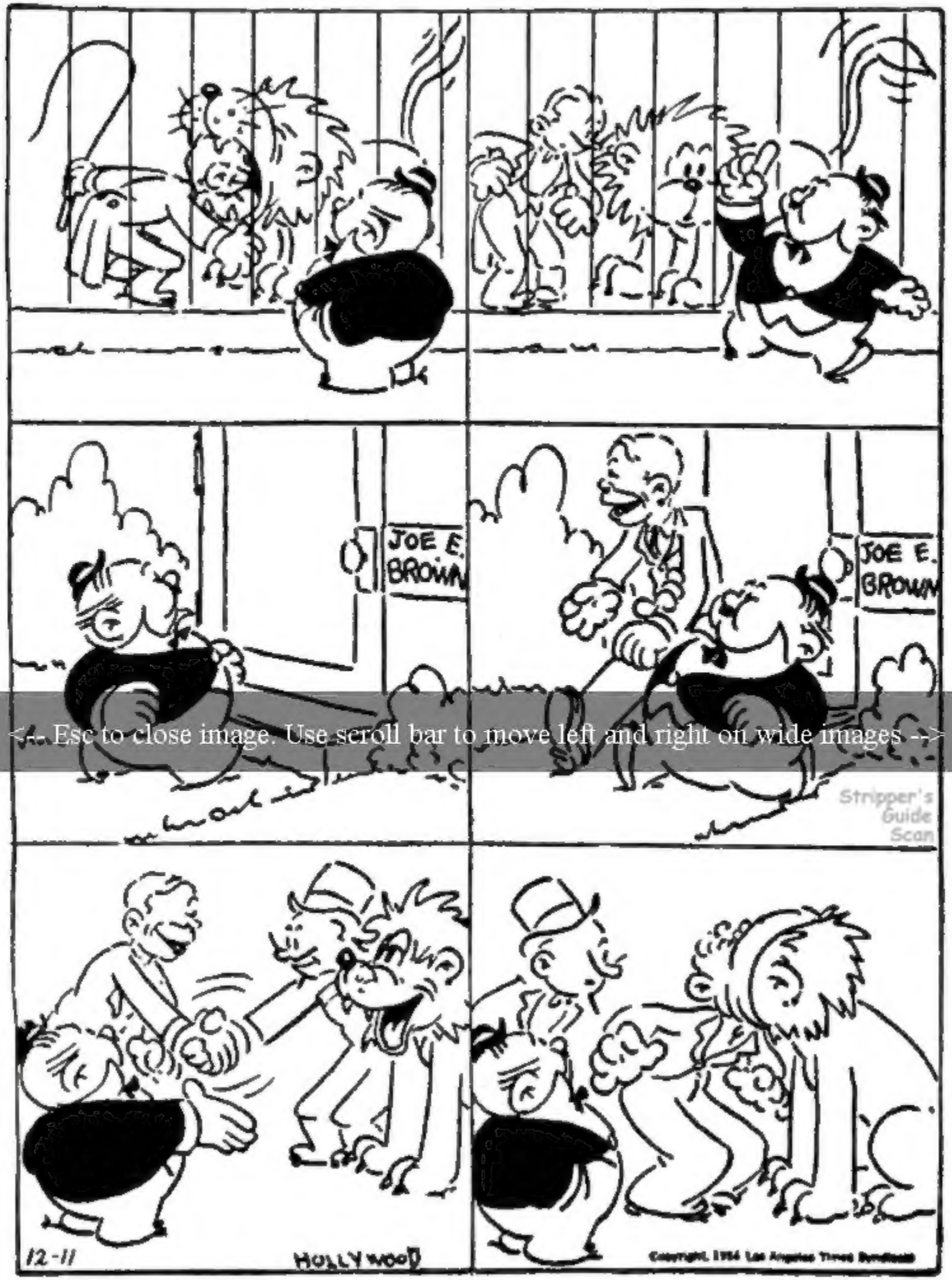
<-- Esc to close image. Use scroll bar to move left and right on wide images -->

9-17

Stripper's Guide Scan

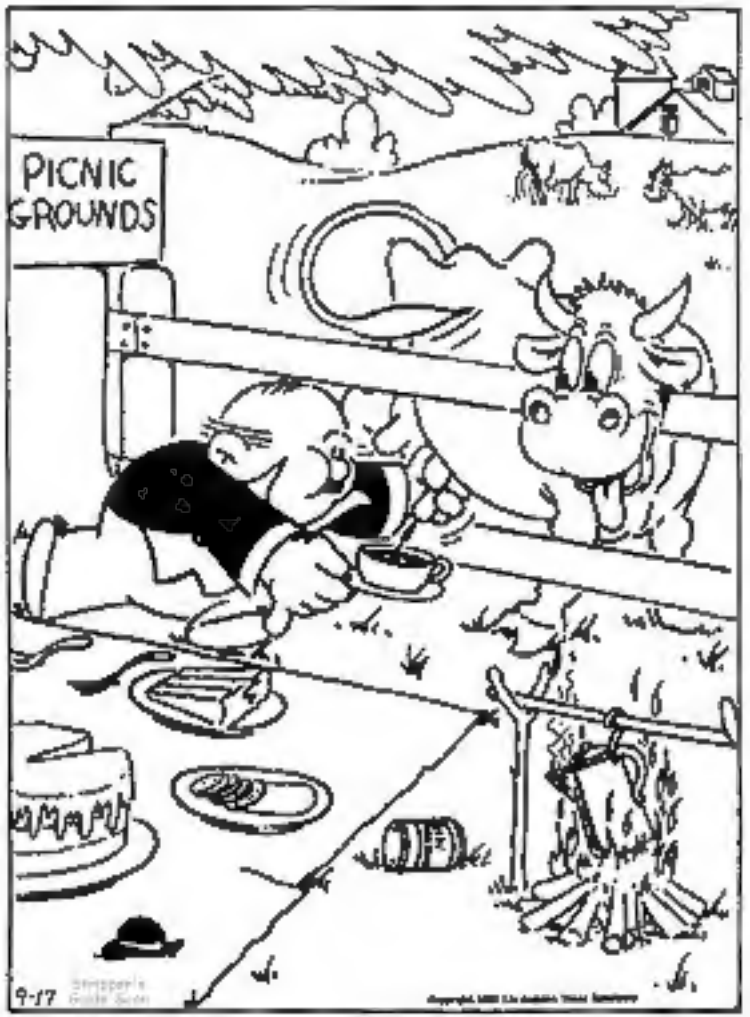
Copyright, 1994 Los Angeles Times Syndicate

Van Boring *(He Never Says a Word)* **—By Tish Tash**



Esc to close image. Use scroll bar to move left and right on wide images
Stripper's Guide Scan

Van Boring *(He Never Says a Word)* —By Tish Tash



Van Boring *(He Never Says a Word)* —By Tish Tash